Project Title: Environmental Data Capturing System

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Introduction

An environmental evaluation and reporting system as that shown in Fig. 1 is under development and near its maturity. The system, through the WWW, enables environmental data to be captured, processed, formatted, and then reported to all the people concerned. The system predominantly performs two major functions: i) to evaluate simultaneously the environmental performance of processes located at different positions, and ii) to convert the computed results into desired reports and allow them accessible to the clients, public, stakeholders, certifying bodies and managers within the organization.

Work scope and objectives

As can be seen in Fig. 1, when the system is in operation, the starting point is the using of the various devices and sensors to capture the pollutant data from the manufacturing plants, or processes. The captured data, in real-time, would be stored and processed continuously by the system. At the moment, the availability of data for the testing and functioning of the system is through a simulation factory which was developed some time ago. The project proposed here is to go one step further, that is, instead of relying on the simulated data, to develop a laboratory environment so that:

1. pollutant data can be generated;
2. appropriate measuring devices/sensors are selected and installed;
3. through the development of suitable software and hardware interface, input signals from the measuring devices/sensors can be compatibly passed onto the system.

Requirements

It is designed to be a group project for the BEMTE students. The number of students required is three. It is expected that these students should have, or are welling to acquire, knowledge about WWW, LabView and Linux.
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Fig. 1, System Architecture